

## PATENT COOPERATION TREATY

## PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY  
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

REC'D 09 JUN 2005

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Applicant's or agent's file reference 1843 PCT	FOR FURTHER ACTION		See Form PCT/IPEA/416																
International application No. PCT/US03/40479	International filing date (day/month/year) 17 December 2003 (17.12.2003)	Priority date (day/month/year) 17 December 2002 (17.12.2002)																	
International Patent Classification (IPC) or national classification and IPC IPC(7): H04K 1/00 and US Cl.: 705/51																			
Applicant DRISCOLL, WILLIAM J.																			
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>6</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> (sent to the applicant and to the International Bureau) a total of ___ sheets, as follows:</p> <p style="margin-left: 40px;"><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p style="margin-left: 40px;"><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p> <p>4. This report contains indications relating to the following items:</p> <table border="0" style="width: 100%;"> <tr> <td><input checked="" type="checkbox"/> Box No. I</td> <td>Basis of the report</td> </tr> <tr> <td><input type="checkbox"/> Box No. II</td> <td>Priority</td> </tr> <tr> <td><input type="checkbox"/> Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td><input type="checkbox"/> Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td><input checked="" type="checkbox"/> Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td><input type="checkbox"/> Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td><input checked="" type="checkbox"/> Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td><input type="checkbox"/> Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table>				<input checked="" type="checkbox"/> Box No. I	Basis of the report	<input type="checkbox"/> Box No. II	Priority	<input type="checkbox"/> Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/> Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/> Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/> Box No. VI	Certain documents cited	<input checked="" type="checkbox"/> Box No. VII	Certain defects in the international application	<input type="checkbox"/> Box No. VIII	Certain observations on the international application
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Date of submission of the demand 16 July 2004 (16.07.2004)		Date of completion of this report 28 May 2005 (28.05.2005)																	
Name and mailing address of the IPEA/ US Mail Stop PCT, Attn: IPEA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230		Authorized officer Andrew Caldwell Telephone No. 305-3900																	

Form PCT/IPEA/409 (cover sheet)(January 2004)

## Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
- ☐ publication of the international application (under Rule 12.4)
- ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
- ☒ the international application as originally filed/furnished
- ☒ the description:
- pages 1-16 as originally filed/furnished
- pages\* NONE received by this Authority on \_\_\_\_\_
- pages\* NONE received by this Authority on \_\_\_\_\_
- ☒ the claims:
- pages 17-20 as originally filed/furnished
- pages\* NONE as amended (together with any statement) under Article 19
- pages\* NONE received by this Authority on \_\_\_\_\_
- pages\* NONE received by this Authority on \_\_\_\_\_
- ☒ the drawings:
- pages 1-4 as originally filed/furnished
- pages\* NONE received by this Authority on \_\_\_\_\_
- pages\* NONE received by this Authority on \_\_\_\_\_
- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.
3. ☒ The amendments have resulted in the cancellation of:
- ☒ the description, pages NONE
- ☒ the claims, Nos. NONE
- ☒ the drawings, sheets/figs NONE
- ☒ the sequence listing (*specify*): NONE
- ☒ any table(s) related to the sequence listing (*specify*): NONE
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to the sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.  
PCT/US03/40479

**Box No. V** Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)	Claims <u>1-23</u>	YES
	Claims <u>NONE</u>	NO
Inventive Step (IS)	Claims <u>NONE</u>	YES
	Claims <u>1-23</u>	NO
Industrial Applicability (IA)	Claims <u>1-23</u>	YES
	Claims <u>NONE</u>	NO

## 2. Citations and Explanations (Rule 70.7)

Please See Continuation Sheet

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**

International application No.

PCT/US03/40479

**Box No. VII Certain defects in the international application**

The following defects in the form or contents of the international application have been noted:

Claims 17-23 objected to under PCT Rule 66.2(a)(iii) as containing the following defect(s) in the form or contents thereof: There is no claim 16 listed.

## Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of:

**V. 2. Citations and Explanations:**

1. Claims 1, 2, 5-13, 16-19 and 21 lack an inventive step under PCT Article 33(3) as being obvious over Grynberg et al. US 4,734,796 in view of Linnartz, US 6,314,518.

As for claims 1, 7, 8, 12, and 21, Grynberg teaches an optical media storage device of a selected format that is adapted to be read by and optical reader (abstract), comprising: (a) a substrate having a first surface and an opposite second surface (abstract, fig. 2), said first surface having a data structure formed thereon which includes: an anomaly region configured to generate one or more errors when read by the optical reader (col. 1 lines 43-67); a fingerprint region having associated informational pits and lands obtained when said anomaly region is applied (col. 2 lines 35-45) and an informational region corresponding to an authentication program (col. 3 lines 60-67). Linnartz teaches the features of the claim not taught by Grynberg, namely a storage media that is an optical media (abstract), and that said hashing algorithm is executed against said anomaly region to generate a test hash value (col. 9 lines 15-30). Linnartz does not explicitly teach a metallic reflective layer disposed over said data structure; and (c) a protective layer disposed over said metallic reflective layer, or a substrate that comprises polycarbonate and said protective layer is a polymeric film, however such are inherent to the system since these are features found on the optical media described by Linnartz (CD, DVD: col. 4 lines 25-40). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate these features into the system of Grynberg. It would have been desirable to do so as this would increase the security of digital content delivery.

As for claims 2, 13, and 22, Linnartz teaches the features of the claim that Grynberg doesn't, namely an optical media storage device according to claim 1 wherein said application program is operative to execute improperly if said test hash value is different than the target hash value (col. 9 lines 15-30). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate these features into the system of Grynberg. It would have been desirable to do so as this would increase the security

## Supplemental Box

of digital content delivery.

As for claim 5, Linnartz teaches the features of the claim that Grynberg fails to teach, namely a media storage device according to claim 1 wherein said algorithm is obscured within said application program (col. 7 lines 20-60, col. 9 lines 15-30). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate these features into the system of Grynberg. It would have been desirable to do so as this would increase the security of digital content delivery.

As for claims 6, 17, and 18, Grynberg teaches a media storage device according to claim 1 wherein said anomaly region, said fingerprint region and said executable region reside at separate locations on said substrate (fig. 2).

As for claims 9, 10, 18, and 19 Grynberg teaches a media storage device according to claim 1 wherein said anomaly region comprises a plurality of continuous physical defects formed on said substrate and wherein said anomaly region comprises a plurality of anomalies formed on said substrate which have characteristics falling outside of normal operating specifications for the selected format (col. 2 lines 25-35)

As for claim 11, Linnartz teaches the features of the claim that Grynberg fails to teach, namely a media storage device according to claim 1 wherein the informational pits and lands associated with said fingerprint region are contiguous (col. 4 lines 25-67). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate these features into the system of Grynberg. It would have been desirable to do so as this would increase the rapidity at which such information is retrieved by the system.

2. Claims 3, 4, 14, 15, 20, 22, and 23 lack an inventive step under PCT Article 33(3) as being obvious over Grynberg and Linnartz in view of official Notice.

As for claims 3, 14, 22 and 23, the combination of Grynberg and Linnartz do not teach an optical media storage device according to claim 1 wherein said hashing algorithm is MD-5. However Official Notice may be taken that the use of such a hashing algorithm is old and well known in the art. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate these features into the system of Grynberg and Linnartz. It would have been desirable to do so as this algorithm is very widely used and hence would increase the utility of the system employing it.

As for claims 4 and 15, the combination of Grynberg and Linnartz do not teach an optical media storage device according to claim 3 wherein said target hash value is a 128-bit key. However Official Notice may be taken that the use of such a hashing key is old and well known in the art. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate these features into the system of Grynberg and Linnartz. It would have been desirable to do so as this would increase the security of the system employing it.

As for claim 20, the claim is directed towards a method for manufacturing the optical disk taught by the combination of Grynberg and Linnartz in claim 1. The combination used in the rejection of claim 1 teaches all of the features of the article of claim 20 except the use of a mastering tape in the production of the article of manufacture. However Official Notice may be taken that the use of a master tape in the production of optical disks is a step that is old and well known in the art. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate these features into the system of Grynberg and Linnartz. It would have been desirable to do so as this would increase the speed at which new disks could be manufactured.